

## Single Pack NL6F 220-240V 50Hz CSIR

Single pack code number: **195B4204**

Position	Title	Code	Amount
1	Compressor NL6F	105G6606	1
2	Starting relay	117U6004	1
3	Starting capacitor (80 $\mu$ F 220V, 6.3mm)	117U5015	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>NL6F</b>	220-240V/50Hz 1~	Sales code:	<b>105G6606</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	19,2cST	Displacement	6,13cm <sup>3</sup> / 0,37cu.in
Oil quantity	265cm <sup>3</sup> / 9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2130cm <sup>3</sup> / 72fl.oz		
Weight	9,3kg / 20,5lbs		
Motor protection	1# internal		
Winding resistance main	16Ω (at 25°C)		
Winding resistance aux	13,6Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with NL6F

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	RSIR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE, EAC	VDE, EAC
Starting torque	LST	HST
Note	- / -	

## Applications with NL6F

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R134a	R134a
Application	LBP	LBP
System cooling	static	static
Hot gas defrost	- / -	- / -
Long interval pull down	- / -	- / -

## Electrical data - Configurations with NL6F

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	PTC	relay
Run capacitor	- / -	- / -
Start capacitor	- / -	80μF
LRA (locked rotor amps / 4s)	5A	5A
RLA (rated load amps / 1s)	1A	1A
Cut in current	9,6A	9,6A

## Model

Designation

**NL6F**

220-240V/50Hz 1~

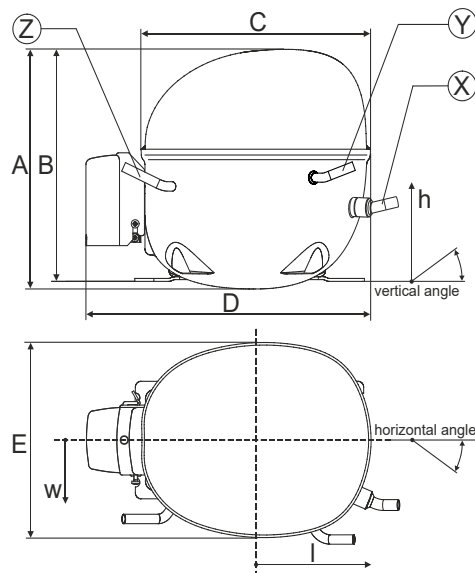
Sales code:

**105G6606**

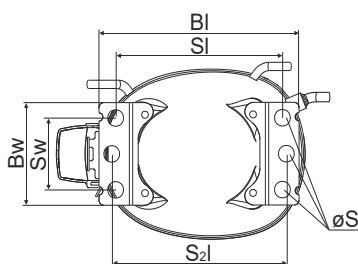
## Compressor dimensions

Housing	A Height	187,5mm / 7,38in
	B Height	181,5mm / 7,15in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in

Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,11-6,29	øi 5,12-5,22	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,24-0,25	øi 0,2-0,21	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	35°	155°
Position l/h/w	[mm]	126/76/78	133/103/54	-107/94/72
	[in]	4,9/3/3,1	5,2/4/2,1	-4,2/3,7/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

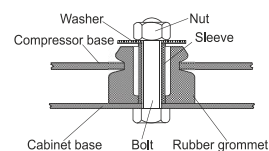


## Compressor fixation



Baseplate	[mm]	[inch]
BI	204	8.03
Bw	100	3.94
Small holes	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

### Bolt joint



### Snap-on



## Mounting accessories

	one comp.	multi pack
Bolt joint   M6   ø16mm	118-1917	118-1918
Bolt joint   ø1/4"   ø16mm	118-1946	
Bolt joint   ø1/4"   ø19mm	118-1949	
Snap-on   ø7,3   ø16mm	118-1947	118-1919

## Model

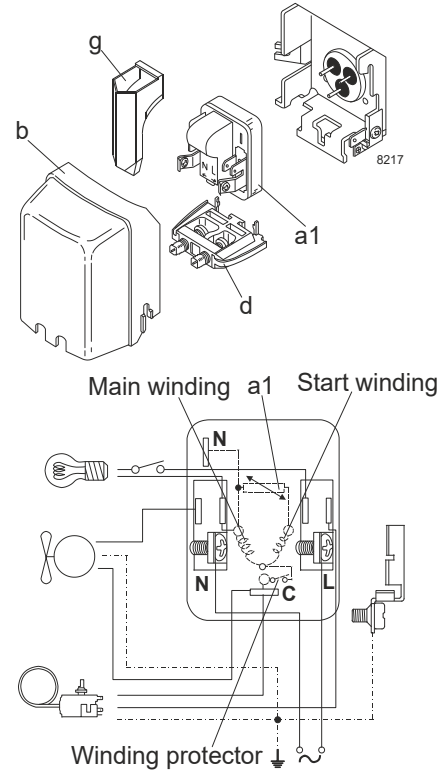
Designation	<b>NL6F</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6606</b>
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## Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE EAC

## Electrical accessories / wiring diagram

RSIR

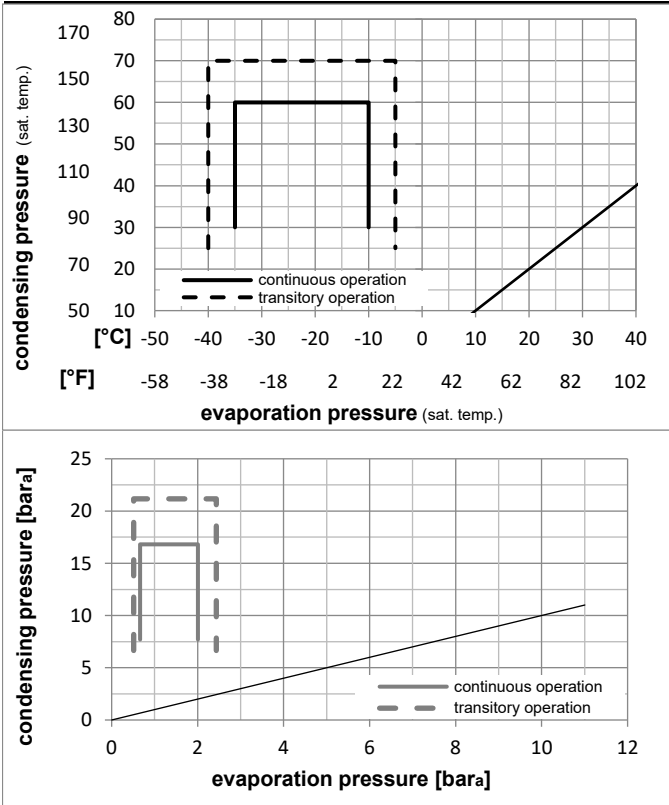


## Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

## Operation pressure range



## Components

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

## Alternative components

a1	PTC starter (220V, 250hm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

## Model

Designation	<b>NL6F</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6606</b>
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## Optimization + standard conditions

R134a, 220V/50Hz, RSIR, static, VDE, EAC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	Power consumption			Ref. mass flow	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	m		
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
-23	54	32	32	151,6	518	130,5	1,21	4,15	1,05	124,8	0,88	2,94	ASHRAE LBP				
-10	130	90	90														
-25	55	32	55	110,0	376	94,7	0,93	3,19	0,80	117,9	0,86	2,63	cecomaf LBP				
-13	131	90	131														
-35	40	20	40	67,9	232	58,4	0,78	2,66	0,67	87,2	0,80	1,49	EN12900 LBP				
-31	104	68	104														
-23	49	4,4	49	125,0	427	107,6	1,00	3,41	0,86	125,1	0,87	3,30	ARI540 LBP				
-10	120	40	120														
-23	41	32	32	173,3	592	149,1	1,41	4,83	1,22	122,5	0,87	3,36	AHAM LBP				
-10	105	90	90														
-35	45	32	45	62,1	212	53,4	0,72	2,47	0,62	85,9	0,79	1,34	opt				
-31	113	90	113														

## Performance tables

R134a, 220V/50Hz, RSIR, static, VDE, EAC

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	62,1	212	53,4	0,72	2,47	0,62	85,9	0,79	1,34
cond. pressure	-30	-22	93,7	320	80,6	0,92	3,15	0,79	101,4	0,81	2,02
pc= 45/113	-25	-13	133,0	454	114,4	1,13	3,84	0,97	118,2	0,85	2,88
return gas temp.	-23	-10	148,1	506	127,5	1,19	4,07	1,03	124,2	0,87	3,21
RGT= 32/90	-20	-4	180,2	616	155,1	1,32	4,51	1,14	136,3	0,90	3,92
liquid temp	-15	5	235,9	805	203,0	1,51	5,16	1,30	156,2	0,97	5,14
Tliq= 45/113	-10	14	300,1	1025	258,3	1,69	5,76	1,45	177,8	1,04	6,57
[°C / °F]	-35	-31	52,0	177	44,7	0,65	2,22	0,56	80,1	0,78	1,24
cond. pressure	-30	-22	77,2	264	66,4	0,78	2,68	0,67	98,4	0,81	1,84
pc= 55/131	-25	-13	110,0	376	94,7	0,93	3,19	0,80	117,9	0,86	2,63
return gas temp	-23	-10	123,0	420	105,9	0,99	3,37	0,85	124,8	0,88	2,94
RGT= 32/90	-20	-4	150,9	515	129,9	1,09	3,72	0,94	138,7	0,92	3,62
liquid temp	-15	5	200,1	683	172,2	1,24	4,24	1,07	161,0	0,99	4,82
Tliq= 55/131	-10	14	257,9	881	222,0	1,39	4,76	1,20	185,1	1,08	6,24

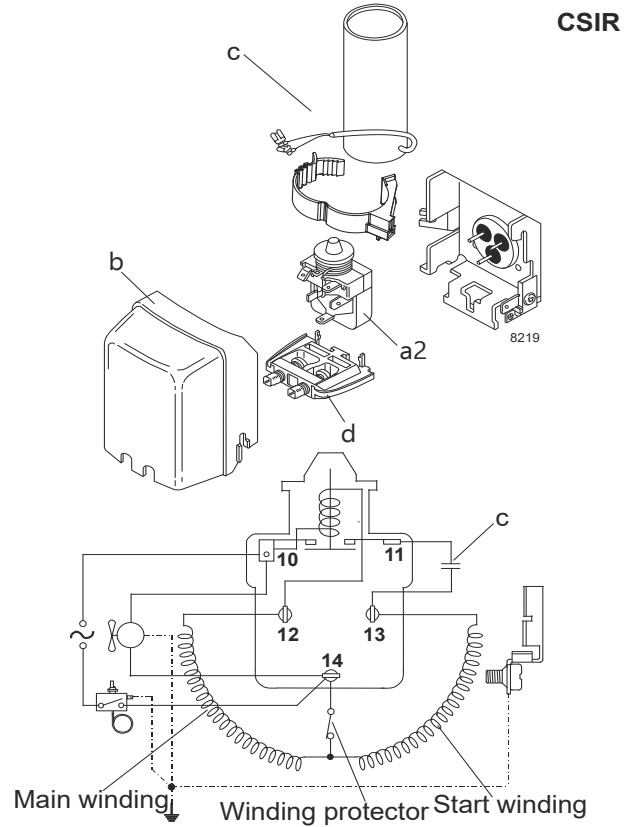
## Model

Designation	<b>NL6F</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105G6606</b>
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE
	EAC

## Electrical accessories / wiring diagram

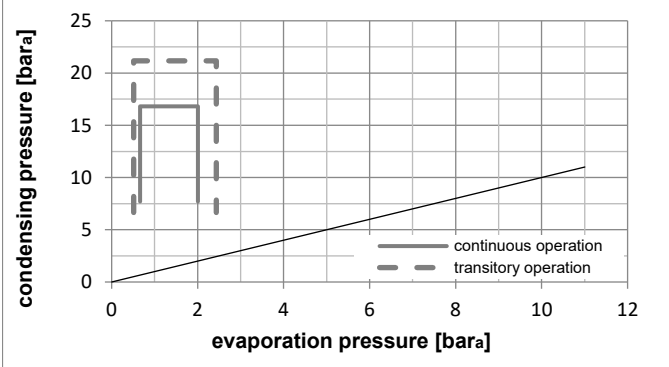
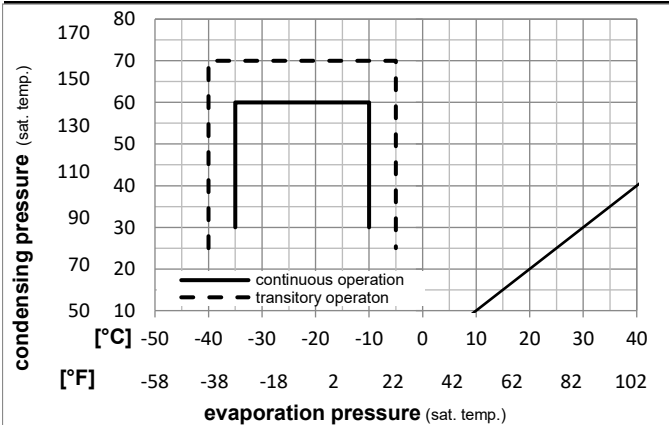


## Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

## Operation pressure range



### Components

a2	current relay	117U6004
c	start capacitor (60μF)	117U5014
d	cord relief	103N1010
d	cord relief	103N1010

### Alternative components

b	plastic cover	103N2011
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## Model

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## Optimization + standard conditions

R134a, 220V/50Hz, CSIR, static, VDE, EAC

	pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	Ref. mass flow	
	[°C]	[°C]	[°C]	[°C]	[W]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
	[°F]	[°F]	[°F]	[°F]	[Btu/h]	[kcal/h]	[kcal/Wh]	[W]	[A]	[kg/h]	
ASHRAE LBP	-23	54	32	32	151,6	1,21	1,05	124,8	0,88	2,94	
	-10	130	90	90							
cecomaf LBP	-25	55	32	55	110,0	0,93	0,80	117,9	0,86	2,63	
	-13	131	90	131							
EN12900 LBP	-35	40	20	40	67,9	0,78	0,67	87,2	0,80	1,49	
	-31	104	68	104							
ARI540 LBP	-23	49	4,4	49	125,0	1,00	0,86	125,1	0,87	3,30	
	-10	120	40	120							
AHAM LBP	-23	41	32	32	173,3	1,41	1,22	122,5	0,87	3,36	
	-10	105	90	90							
opt	-35	45	32	45	62,1	0,72	0,62	85,9	0,79	1,34	
	-31	113	90	113							

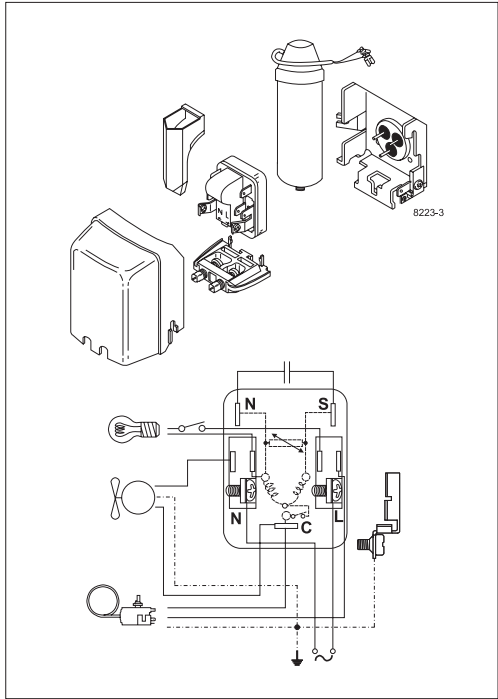
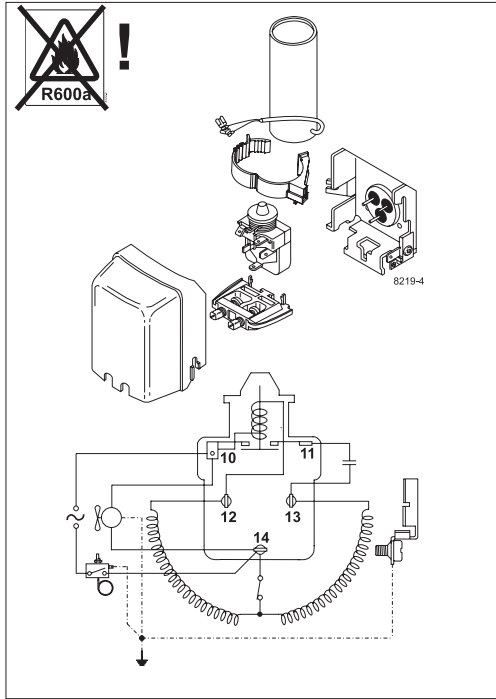
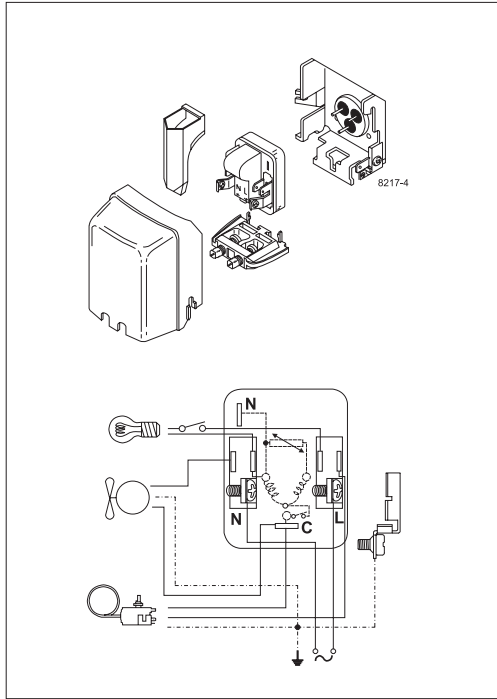
## Performance tables

R134a, 220V/50Hz, CSIR, static, VDE, EAC

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	62,1	212	53,4	0,72	2,47	0,62	85,9	0,79	1,34
cond. pressure	-30	-22	93,7	320	80,6	0,92	3,15	0,79	101,4	0,81	2,02
pc= 45/113	-25	-13	133,0	454	114,4	1,13	3,84	0,97	118,2	0,85	2,88
return gas temp.	-23	-10	148,1	506	127,5	1,19	4,07	1,03	124,2	0,87	3,21
RGT= 32/90	-20	-4	180,2	616	155,1	1,32	4,51	1,14	136,3	0,90	3,92
liquid temp	-15	5	235,9	805	203,0	1,51	5,16	1,30	156,2	0,97	5,14
Tliq= 45/113	-10	14	300,1	1025	258,3	1,69	5,76	1,45	177,8	1,04	6,57
[°C / °F]	-35	-31	52,0	177	44,7	0,65	2,22	0,56	80,1	0,78	1,24
cond. pressure	-30	-22	77,2	264	66,4	0,78	2,68	0,67	98,4	0,81	1,84
pc= 55/131	-25	-13	110,0	376	94,7	0,93	3,19	0,80	117,9	0,86	2,63
return gas temp	-23	-10	123,0	420	105,9	0,99	3,37	0,85	124,8	0,88	2,94
RGT= 32/90	-20	-4	150,9	515	129,9	1,09	3,72	0,94	138,7	0,92	3,62
liquid temp	-15	5	200,1	683	172,2	1,24	4,24	1,07	161,0	0,99	4,82
Tliq= 55/131	-10	14	257,9	881	222,0	1,39	4,76	1,20	185,1	1,08	6,24



# NL Compressors







## Service/Repair – R600a, R290



8545

## Brazing on Suction Connectors (Direct Intake)

representative image



**! max. 150°C/302°F !  
at socket**  
brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:  
**Brazing on Suction Connectors  
(Compressors with Direct Suction Intake)**

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